



WALKING THROUGH HISTORY ON MARSHALL MESA



by
JOANNA SAMPSON

CITY OF BOULDER
OPEN SPACE DEPARTMENT

SURVEY AND INTERPRETATION OF MARSHALL COAL MINING PROJECT



This brochure and project was a cooperative effort between the City of Boulder Open Space Department and the Colorado Historical Society to document the history of the coalfields on City of Boulder Open Space lands near Marshall, Colorado.

A thorough archaeological survey, historical investigation, and documentation of over 3,000 acres of land associated with historic coal mining was completed in 1995. The information was used to develop this brochure and interpretive displays were created and installed within the project area.

The Marshall Coal Mining Project was funded by a State Historical Fund grants award from the Colorado Historical Society and matching funds from the City of Boulder.

Brent Wheeler: Project Director
City of Boulder Open Space Department

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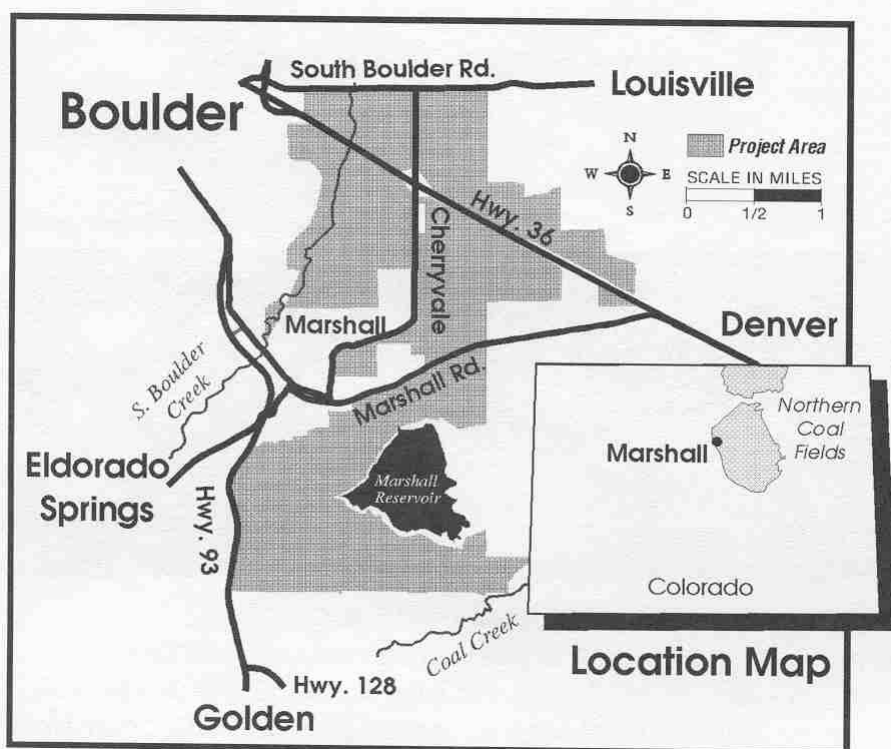
Photograph credit; Joanna Sampson collection



"The Hewer at Work"

A miner would lie on his side to undercut the coal seam with his pick, often working in water. He would then drill holes into the face of the coal with a hand auger and into these holes he tamped cartridges filled with black powder to blast the coal down. Undercutting the face of coal was necessary because blasting a solid face of coal weakened the mine roof and produced smaller, less valuable lumps.

MARSHALL COAL MINING PROJECT AREA





The last coal tippie in Boulder, County stood in Marshall Valley on a site now belonging to the City of Boulder Open Space Department. In 1975 the old tippie was torn down because it had become unsafe. A tippie is a structure at the opening of a mine used for unloading coal.

INTRODUCTION

Marshall Mesa is located in southern Boulder County and is managed by the City of Boulder Open Space Department. It is a beautiful area, popular with a wide variety of users. Yet many who enjoy the property are not aware that this is the site of the first coal discoveries in the Colorado Territory (Colorado did not become a state until 1876). Coal was a major source of power during the early settlement of the West. It hauled gold and silver ores out of the mountains. It powered the steam engines and railroad locomotives that built many of the cities and industries in this region.

Coal killed a lot of men. It triggered bitter fights and raging union strikes. It helped form new laws. But it was commonplace wealth, always playing second fiddle to Colorado's gold and silver ores.

Coal mining began in Marshall in 1859. Fifty-one Marshall mines are recorded in official Colorado coal mining records. The coal was not high quality, but because this district was close to metropolitan areas there was a demand for it. Marshall became an important industrial center, providing coal for heating, power plants, railroads, and steam engines. Marshall soon had

railroad connections to Golden, Boulder, and Denver. The first railroad into Marshall was the Golden, Boulder, and Caribou Railway, built in 1878. In 1890 the Colorado and Southern built track through Marshall from Denver to Boulder and serviced big mines like the Fox, Gorharn, and Red Ash until 1932, when the railroad tracks were removed.

Early surveyors and geologists mapped the economic resources contained in the Marshall coal deposits. Cited as one of the oldest coal mining operations in the western United States, the Marshall mines attracted miners from many foreign countries. Marshall Valley soon was filled with the homes of mine owners, miners, and railroad workers.

Marshall was a tough town. Many single men worked the mines, and the combination of bachelors and saloons triggered many fights. One of the saloons in Marshall was built and operated on mine-owned property by the famous Zang Brewery Company. The brewery paid \$5 per month in advance to the coal company for the use of the ground where their saloon stood.

Working in the coal mines was dangerous work and fatality rates were high. Dangerous working conditions, poor living arrangements, and low wages fostered dramatic strikes that disrupted the coalfields. Major coal mine strikes were organized in 1914 and in 1927. Violence touched the lives of miners, mine owners, sheriffs, and their deputies when miners went on strike. Both the Colorado National Guard and Federal troops were ordered into the coalfields during the strike years.

By 1939 most of the marketable coal was gone in Marshall and the remainder of the coal was being consumed by underground mine fires that raged uncontrolled through several old mine workings. In 1946 a major mine owner, Rocky Mountain Fuel Company, declared bankruptcy. Miners and their families left the area for jobs in other places. The population of Marshall diminished.

In 1971 the City of Boulder Open Space Department began purchasing land that was once part of the old coal mining district in Marshall. There are a few landmarks left as reminders of the coal mining days, including railroad grades, cement foundations, and old coal mine dumps. Most visitors are unaware of these remnants of the coal mining days, but they enjoy the scenery and the flora and the fauna presented in this diverse area that contains prairie grasslands, ponderosa pine forests, and the unique geology of a coal mining site. One historic phenomenon visitors find interesting is the ancient underground coal mine fires that have burned continuously for more than 100 years. Over the years a number of unsuccessful attempts have been made to extinguish these ancient fires, but they still burn on private property in the Marshall area.



Massive, cross-bedded, and ripple-marked sandstones are signatures of geological time in Marshall

GEOLOGY

Handsome ripple rocks in Marshall tell a vivid geological story. They show evidence of ancient seas and massive faults. Marshall Valley is a complexly faulted zone containing a concentration of fractures where rocks rifted away from and slammed against each other during the upthrusting of the Rocky Mountains. Hematite, or iron ore stains, spread dark, metallic shadows across the bases of these rocks. Because coal is formed in swamps, the geology at Marshall displays classic evidence of ancient seas and tropical climates. Swamps accumulated tons of vegetation that, instead of rotting, sank into the bogs under its own weight. This mass was then subjected to great pressures, and over millions of years the plant debris turned to coal. It is estimated that it took approximately 15 feet of vegetation to form one foot of coal. Coal seams in Marshall ranged from one to 12 feet in thickness.

In 1873, Arch Marvine, geologist with the Hayden survey team wrote: "Marshall Mine on the east side of the valley of the South Boulder Creek about 5 miles SE of Boulder City was among the earliest worked in Colorado."

In 1889 Arthur Lakes, Professor of Geology and Drawing at the School of Mines in Golden, Colorado, stood on the hill north of Marshall and sketched geologic features, mines, tipples, railroad grades, and buildings in the area that was being mined at that time. Many of these landmarks are still visible.

In 1961 Frank D. Spencer, the United States Geological Survey geologist who drafted the Bedrock Geology of the Marshall area, noted that all exposed coal formations here are from the Late Cretaceous period (70 to 135 million years ago) and consist of Pierre shale, the Fox Hills sandstone, and the Laramie formation. All mined coal beds in Marshall and the surrounding northern coalfields are within the Laramie formation.

Sketch credit: Colorado School of Mines



The sketch Professor Arthur Lakes made of Marshall in 1889. The library at Colorado School of Mines in Golden is named for him, and his watercolors of dinosaurs and geological formations are on display in the entrance hall of the building.



Marshall was once known as Langford in honor of Augustine B. and Nathaniel P. Langford, who were early investors in Marshall coal mining. At one time Nathaniel Langford was governor of Montana. He was later appointed the first Superintendent of Yellowstone National Park after Congress established the park in 1872. Marshall was also known as Gorham before the name Marshall was adopted permanently.

EARLY DISCOVERIES

Native Americans in this area had long known about the burning properties of coal, but they were not interested in mining coal. Certainly they never wanted to establish an industrial center in this lush valley where grass grew belly-high to a leggy pony and game was plentiful.

In 1859 William Kitchens discovered coal in the area. He named his discovery the Washington Lode, and it was used as a wagon mine by early settlers. A wagon mine was just what the name implied: clients drove their teams and wagons to the mine, loaded the coal they needed for domestic use, and hauled it home to burn in heating stoves and kitchen ranges.

Joseph Marshall and wealthy associates saw the potential in developing a lucrative mining operation. Marshall purchased the Washington Lode from William and Nancy Kitchens in 1866 and then applied for ownership of the remaining coal lands. In 1868 he obtained a United States Land Grant, signed by President Andrew Johnson, that gave him legal rights to all coal lands around Marshall.

Along with coal, the territory's first iron ore, or hematite, was discovered in the vicinity, and Joseph Marshall built a smelter to process the ore. Even though it generated a flurry of publicity, the smelter turned out to be a poor business venture. Its hearths were a disaster, burning out twice in a short period of time.

However, iron ore from Marshall was used to cast the first cannon in the Colorado Territory made from native ore. The cannon was cast in May 1861 in the territory's first foundry located at 17th and Larimer in Denver. The foundry was owned by Augustine Langford, friend and partner of Joseph Marshall. The small cannon was bored out and finished by John W. Nesmith and fired on Independence Day, July 4th, 1861. William R. Marshall later donated the small cannon to the Colorado History Museum in Denver where it is now stored.

'In 1866 famous travel writer Bayard Taylor came West to write about this vast new country for readers of the *New York Tribune*. He was an observant reporter and when he visited Marshall, he was enthusiastic about the "charming little valley" with its rich coal mines and iron ore deposits. He was invited to dinner by Joseph Marshall, who afterwards took him on a tour of the mines and the smelter.

"The furnace," Taylor wrote, "is not only substantially but handsomely built, and has thus far done a thriving and successful business for its owner." However, Marshall admitted it was "more profitable to buy up abandoned machinery at a trifling cost and recast it" than to mine iron ore. The hard labor of extracting native ore versus casting worn-out farm machinery had convinced Joseph Marshall that iron mining was labor intensive! However, he did mine more than 500 tons of the ore and found that 4,400 pounds of ore mixed with limestone and charcoal produced one ton of excellent quality gray pig iron.

Dr. F. V. Hayden of the Hayden Survey personally recorded 48 geological layers in Marshall during his research in 1869.

"In the mine the freshly exposed face presents a beautifully brilliant appearance," wrote Hayden Survey geologist Arch R. Marvine, "and the coal is so found that a cubic block of it, said to weigh over three tons, was taken out for exhibition at the fair at Denver."

Wealthy and influential entrepreneurs were extremely interested in information about coal and mineral deposits mapped by the Hayden Survey. Joseph Marshall soon had partners who were well known in the United States. Several investors such as Langford and Gorham were honored by having the coal camp named for them before the name Marshall was finally adopted permanently.

A gold miner could dream about hitting it rich in the mines of Colorado. Coal miners never dreamed of hitting it rich because profits from coal mines went to the owners, not to workers. For example, in 1885 the Marshall Consolidated Coal Company owned \$2 million in capital stocks, but the miners lived close to the poverty level. Company stores charged exorbitant prices and wages were extremely low. Miners had to buy their own black powder, lights, and tools. They had to pay monthly fees to the company doctor and to the company blacksmith. They paid rent for the company houses in which they lived and they paid for the coal they used in their homes. Miners often were paid less than 50 cents per ton of coal they mined. Sometimes when a miner went to draw his wages he found he had nothing left after the money he owed the company was docked. That was called a "bobtail" check.

Miners' houses (shacks, dugouts, company houses, and sturdy rock homes) soon filled the valley. Company stores, mine structures, boarding houses, and blacksmith shops were built. Tipples stood at the mouth of every mine opening. There was a meat market and a post office. There were bathhouses for the miners and numerous saloons. Marshall never had a cemetery or a church but there was always a school. When the old school became crowded, a new and spacious schoolhouse was built. Pool halls were popular and several whiskey stills turned out a particularly potent beverage known as "White Mule." This harsh whiskey was noted for its numbing effects and often was used as a powerful anesthetic for dentistry and for setting broken bones. Railroads cut through the valley, with spurs running to the big mines. The railroad companies also built a depot and a section house in Marshall.

RAILROADS COME TO MARSHALL

Transportation is vital to an industry like coal mining. It was soon apparent that hauling coal to the Denver and Boulder markets in wagons was inefficient. On January 10, 1878 the last rail was spiked down at Marshall as the Golden, Boulder, and Caribou Railway Company pushed its line into the coal camp.

Rail service did not begin until a month later, when a party of celebrants from Denver, Golden, and Boulder arrived by train to tour the interior of the mine and enjoy a sumptuous feast provided by their hosts.

Coal turned this line into a moneymaker, so much so that in 1885 a Union Pacific subsidiary, the Denver, Marshall, and Boulder, constructed track north from Denver. By August 1, 1886 their track was completed into Boulder via Marshall and placed into service. This railroad brought trains directly through the University of Colorado campus, then down the hill to the depot on Water Street (now Canyon Street). In Boulder, the Andrews Arboretum on Broadway south of Arapahoe is on the old right-of-way that ran through campus.

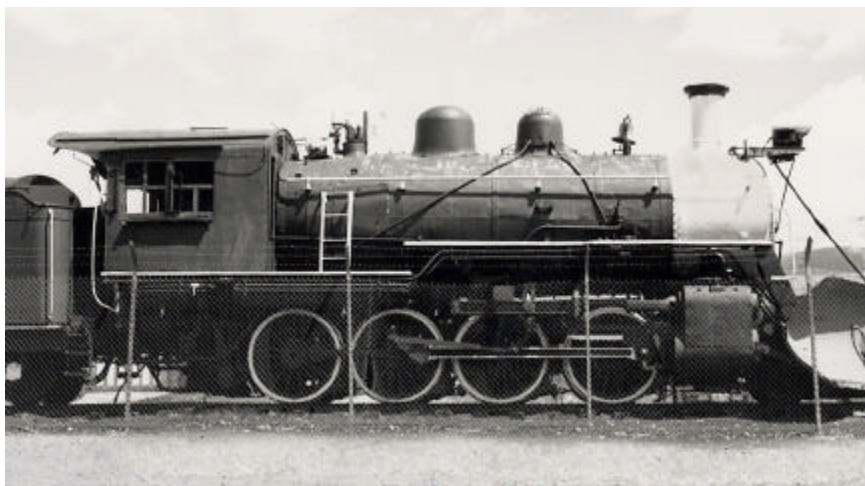
In 1890 the Union Pacific, Denver & Gulf consolidated a number of railroads, including the Denver, Marshall, and Boulder. It operated the railroad through Marshall until 1901 when the Colorado & Southern (C&S) took over. One of the first C&S priorities was to add a spur from the main track east of Marshall, west and north, to the Fox Patterson mine.

In 1908 a unique feature was added when the C&S-owned Denver & Interurban Railroad Company (D&I) put into service a transit operation called "The Kite Route." Regular interurban operations on the D&I made 18 round trips between Denver and Boulder every day. Trains made a closed circle around the kite-shaped line going in one direction via Marshall and in the other via Louisville, meeting east of these towns at the Louisville Junction and proceeding into Denver on track that formed the "string" of the kite. This line was visionary in that it equaled present-day mass transportation systems between Boulder and Denver. Marshall's railroad era ended in 1932 when the Marshall branch was abandoned and track was pulled up from the Water Street depot in Boulder to

the Crown Mine spur several miles east of Marshall.

The old C&S railroad grade runs through the Marshall Mesa Open Space and can be seen directly south of the trailhead.

Photograph credit: Joanna Sampson



Standard gauge steam engine #641 was one of 50 engines built in 1906. It was used to move coal trains from Marshall to markets in the metropolitan area. Only two of the 50 locomotives survived; the rest were scrapped. Locomotive #641, built by the Baldwin Locomotive Works in Philadelphia, Pennsylvania, was last used by the Colorado and Southern between Leadville and Climax, Colorado. It is currently on display in Leadville, Colorado. (Charles Albi, Colorado Railroad Museum, Golden, Colorado)

FROM MULES TO MACHINES

The first miners to arrive in Marshall were professional miners from countries like Wales, England, and France. These men knew how to open a mine, lay rails, handle explosives, timber, and undercut a coal seam. Though not formally educated, many of these men had vast knowledge and experience in the fields of geology and engineering.

Coal was mined for over 80 years in Marshall, a period that saw mining go from old-fashioned tools (picks, hand augers, black powder, and mules) to the use of continuous mining machines with cutters, loaders, and conveyors built into one machine. Large mines installed the newly invented machines as quickly as they became available while smaller mines continued to use the old tools and mule transportation until the 1940's.

Geological Engineer Stephen S. Hart points out that "the underground coal mining industry in Colorado utilized the same basic mine design throughout its 100-year history, due to the soft, gently dipping sub-bituminous coal. This method of mine layout is

called the room and pillar method, a design brought to the State in the 1860's by Welsh and English miners."

Photograph credit: Borstnick collection



Early coal miners in the northern fields. Note the old-fashioned hand augers and lard lamps. Lard lamps were dangerous because their open flames could cause massive mine explosions.

Hart goes on to explain how coal was drilled and blasted. Early miners used a "breast auger," a hand-held, hand-operated, six to eight foot long drill to bore shot holes. Cartridges were then rolled by the miner, filled with black powder, and tamped into the shot holes with a wooden rod. After the hole was plugged with clay, a long, thin copper needle (copper does not make sparks) was inserted to punch a hole into the cartridge. A "squib," a long fuse, was placed in the hole and lit with the miner's open-flame head lamp. Once the

coal was blasted, it was shoveled into mine cars and hauled to the mine entries by mules. Later, mechanical augers were used to drill the coal, federally approved explosives were electrically detonated by a professional shot firer for blasting, and electric motors often replaced mules.

TWO-FISTED TOWN

When David Moffat wanted to build a commissary in Marshall to service his railroad workers and supply material by train for his railroad up the Front Range, mine owners told him that was a risky business because the miners in Marshall were "tigers." The miners, on hearing this, decided they had better act their part. Consequently they walked the streets with a swagger and started bare-knuckle fist fights with Moffat's crews on the slightest provocation. Come

Monday morning most of Marshall's male population sported black eyes and went back to work grateful for the chance to rest after a strenuous weekend!

Miners needed to be tough to survive harsh working conditions in the mines. Colorado coal mines were dangerous working places, a fact verified by the high fatality rates-double that of any place else in the world for many years.

There were many ways to die in the coal mines. A miner could be blown to smithereens in an explosion, or he could linger over his dying for days in a collapsed mine shaft that rescuers could not penetrate. Falling slabs of rock and coal killed the biggest percentage of men, though many others met their Maker after being crushed against the walls or run over by loaded coal cars. Some were electrocuted, others kicked through the pearly gates by ill-tempered mules.

In fact, the first grave (unmarked) in the Green Mountain Cemetery in Boulder belongs to Archie Chalmers, a Scottish mine foreman, who was struck in the Gorham mine at Marshall by a runaway coal car in 1904 and died of internal hemorrhaging.

Living conditions for workers were primitive and dominated by the coal companies who demanded that miners live in fenced camps, often patrolled by armed guards, and that they trade at company stores, use company doctors, blacksmiths, schools, and churches and be paid in scrip (a form of non-money good only at company stores).

Because of the dangers and hardships, even before the turn of the century miners were trying to form unions in an attempt to better their working conditions. When miners went out on strike the coal companies retaliated swiftly. They evicted miners from their homes. In Marshall, 25 miners and

Photograph credit: Boulder Historical Society, Carnegie Branch Library for Local History



Marshall, with its many saloons and daredevil miners, had the reputation of being the toughest, brawlingest coal camp in the entire west.



Women with their water pails pose on Marshall Creek or the Slack Ditch, which ran through the center of town. The railroad tracks were in approximately the same place where Old Marshall Road goes today. .

their families were evicted in 1910. Coal companies mounted machine guns and search lights on tipples and water tanks after the strikes began, and they hired Baldwin-Felts detectives to protect their mine property. Coal companies easily persuaded the governor to send National Guard troops into the field, not to mediate the strike, but to protect mine property. Using troops to favor the position of coal operators was illegal, but it was a practice employed in Colorado for many years, a practice bitterly despised by the miners and one that rankles to this day in coal towns.

Coal companies brought in cheap labor to replace strikers. These laborers were called "scabs" and were the most hated group of workers ever to come into Colorado. Scab laborers did not know how to mine coal, and because of their inexperience, they drove fatality rates higher than they had ever been. Since they were lured into the state by agents recruiting cheap labor, they did not know they were displacing striking miners. They did not know about the dangerous working conditions or dreadful living patterns they would be forced to accept.

Often from foreign countries, miners chose to live in sections of town with members of their own nationality where their native language was spoken and where familiar customs were observed. Remnants of this pattern of ethnic division may still be seen in coal towns in Colorado and are evident sometimes even in coal town cemeteries.

Marshall boasted several unique communities: "Frenchtown," "Downtown" where the Italians lived, "Foxtown" where the English and Irish lived, and a section along old Marshall Road dubbed "Telephone Row" because gossiping housewives could spread the news faster than phones could!

DAYS OF VIOLENCE

In 1910 coal miners in the northern fields went out on what was to become known as the "long strike." The next four years were filled with unprecedented violence in Boulder County as mine operators and striking miners fought for opposing goals. Miners wanted better working and living conditions. Mine owners wanted to hold on to old practices that allowed them to enjoy the rewards of cheap labor.

When the miners went out on strike, Baldwin-Felts detectives were recruited from the coalfields of West Virginia to act as armed guards protecting mine property.

Bloody encounters between strikers and scabs occurred almost daily. Law enforcement agencies in Boulder County were caught in the middle of this battle, and though they tried hard to maintain impartiality, their workload was increased enormously. Industrial war raged throughout the county, and these years were dangerous for strikers, scabs, and the men who tried to keep peace in the coalfields.

Photograph credit: Denver Public Library, Western History Department



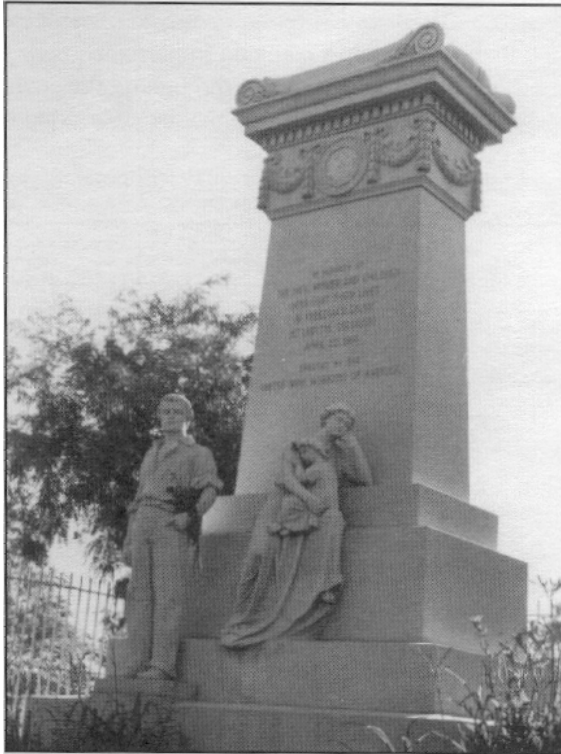
At the Gorham Mine, during the long strike that began in 1910, a huge rock mysteriously crashed down the entryway of the mine as strikebreakers were coming out. Half the men quit instantly. The other half quit soon thereafter: Gorham officials were out \$40 apiece for transportation costs to bring these men to work in their mine.

By 1913 miners in Colorado's southern coalfields near Trinidad and Walsenburg joined the strike, and seven demands were drawn up and presented to the coal operators. Miners asked that they be allowed to form a union; for a scale of wages for mine workers; an eight-hour day; pay for all "dead work" which included timbering, laying track, cleaning rock from the coal and other jobs they were not paid for; a check-weighman at all mines to stop the practice of cheating miners at the scales; the right to trade in any store they chose; and the enforcement of the Colorado Mining Laws and the abolition of the company hired-guard system, which had prevailed in the camps for so many years.

When presented with these demands, the owners decided to ignore them. They promptly put more scab labor to work and asked the governor to send National Guard troops into the field.

On April 20, 1914, troops stationed near Ludlow, north of Trinidad, opened fire on the tent colony where striking miners and their families had spent the winter. Four men, three women, and eleven children were killed in Ludlow that day. The Ludlow Massacre enraged citizens the world over as the dangerous conditions under which miners were forced to work came to light.

Photograph credit: Joanna Sampson



The Ludlow monument erected by the United Mine Workers of America is located between Walsenburg and Trinidad in the southern coalfields and is about a mile west of Interstate 25.



During strike times this old water tank above the Gorham Mine had a machine gun mounted on its roof Machine guns were also located in strategic spots on hills both north and south of the valley.

UNDER THE MUZZLES OF MACHINE GUNS

After the Ludlow Massacre, miners allover the state lived in terror. When and where would the machine guns be turned on strikers next?

One week after Ludlow there was a shooting in Louisville at the Hecla Mine serious enough to warrant the arrival of National Guard troops on the next train. In Marshall, guns and ammunition-hidden in milk cans by miners- were being smuggled into camp from Arvada. National Guard soldiers were patrolling the roads on horseback and miners' families were eyeing those machine guns on the water tank and adjacent hills with fear while stuffing mattresses in door and window openings for protection in case the guards opened fire.

For weeks tension was high in every coal town in Colorado. But miners lost this strike. They went back to work under conditions much the same as they had been before the strike. By 1917 when the United States entered World War I, the demand for coal was high. Colorado's mines hit peak production records during the war years as miners made a superhuman effort for the war. After the war, the market for coal fell. The coal industry

was "sick," and in an effort to meet financial obligations, coal owners cut wages. By 1927 miners were ready to strike again. The Industrial Workers of the World (IWW) organized a strike and soon had all mines in the state closed except the big Columbine Mine near Erie that was owned by the Rocky Mountain Fuel Company. By mid-November 1927, it was cold and no coal was being mined for use by Valmont Power Plant, the University of Colorado, hospitals, rail-roads, businesses, and homes. The need for coal was critical.

Miners were demonstrating at the Columbine Mine (with permission of the owners) and miners from Marshall joined the strike lines that marched through mine property every day. Early on the morning of November 21, 1927, state police opened fire on the striking miners, killing six men and injuring scores of individuals, including several women who were badly hurt.

Martial law was declared in Colorado's northern coalfields. Miners gradually went back to work after losing this strike also.

In 1933 the National Industrial Recovery Act was passed, which automatically recognized unions in all United States coal mines. From that time on miners were allowed to join the United Mine Workers of America.

Photograph credit: Industrial Workers of the World



Newspaper reporters stated *that* after the 1927 shooting *at* the Columbine Mine, the police needed a few bandages; the miners needed a shipment of coffins.



Marshall as it looked during the early years of coal mining when the camp was named Langford. Foxtown was named for MP. Fox, whose mine operated from 1884 until 1936.

THE PASSING YEARS

The stock market crash in 1929 was the beginning of the Great Depression which hit the coal industry hard. Big mines in Marshall began to close. Coal lands were going up for tax sales. Railroad tracks were pulled out. The big Gorham Mine that opened in 1898 and was owned by the Rocky Mountain Fuel Company closed in 1939. In 1946 the Rocky Mountain Fuel Company declared bankruptcy. Except for a few small operations mine property was abandoned and the population of Marshall dwindled. Mine structures were dismantled, company houses were sold and moved to other sites, and miners took jobs at mines that were still operating in other districts.

Coal miners who took jobs in other industries were noted for two things: they were hard workers and they always paid their bills promptly. They also encouraged their children to further their educations, so they would never have to work in the mines.

In Marshall the valley and the mesas were quiet. Water filled many of the old workings. Ancient mine scars began to heal. Today there are crumbling cement foundations and coal dumps where the mines once worked. A few powder houses where mine explosives were stored remain and railroad grades still can be seen where heavy coal trains ran so long ago. The mesas on either side of Marshall Valley look solid and safe, yet they are honeycombed with old tunnels that have begun to cave in as the years pass.

Several old powder houses that were carved into the sandstone cliffs and a cave that was used as a home are still intact. Joseph Zarina chipped out the cave with his miner's pick during the early years of mining in Marshall. His son, Rico, was born in that cave. In an interview with Open Space personnel in 1992, another son, Peter, told how his father dug the cave and how he always managed to shelter, clothe, and feed his eight children by working long hours in the Marshall mines.

Photograph credit: University of Colorado, Historical Collection



Coal fires in Marshall have burned since before the turn of the century and "the potential for widespread and serious hazard is considerable" (Herring, 1986)

Marshall has always been famous (or infamous) for the underground coal fires that have burned for 126 years.

In 1883, Colorado Coal Mine Inspector John McNeil wrote: "There are three collieries in this state in which spontaneous combustion is going on. The most fierce of these mine fires can be found in the Marshall coalfield, Boulder. This fire in part originated fourteen years ago [1869] and now extends over many acres. ...It is impossible to extinguish this fire [and] smoke and other gases from the fire emptying themselves through chimneys reaching to the surface in many places, make it look like a group of burning volcanoes. The suction of this fire pulls fresh air down through the broken strata which supports combustion; thus thousands of tons of coal are destroyed by this fire."

James R. Herring, United States Geological Survey geologist, in 1986 verified existing coal fire problems. "This coalfield extends for miles under gas lines, major highways, parts of several cities, and undermines the Marshall Lake Dam."

After the mines closed, the land was leased for grazing. A few families settled in the town and in the valley, but the land is not suitable for development because of the extensive mine workings and underground fires.

In 1967 the City of Boulder enlarged its love affair with the outdoors (begun with the 1898 purchase of Chautauqua Park as part of the Mountain Parks system) by putting a sales tax proposal on the ballot to acquire land for open space. Boulder citizens passed the sales tax by a huge majority .Almost two million visitors now enjoy Boulder's Open Space properties every year.

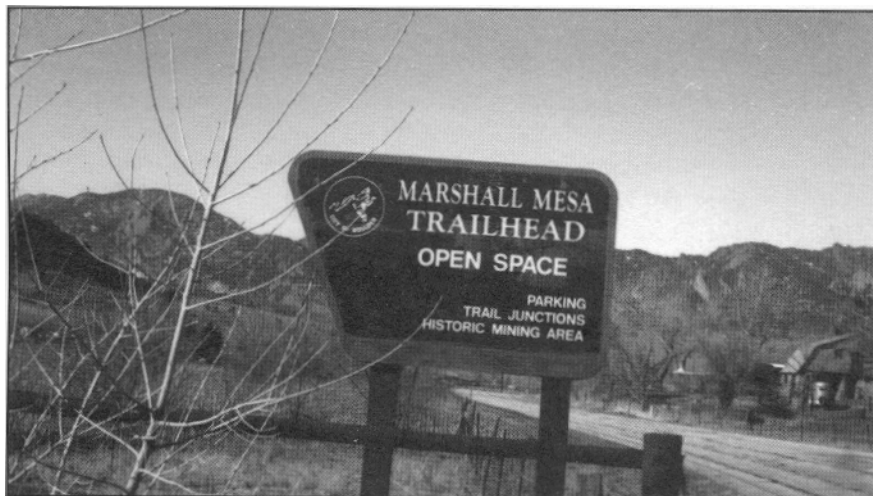
Marshall Mesa is part of the Open Space land system that has attracted worldwide interest, and it is a favorite area of hikers, cyclists, horseback riders, photographers, birders, and dog owners. Academic groups, from kindergarteners to graduate students, enjoy this property .Visitors, including professors and scientists from all over the world, have hiked its trails and have gathered information on these lands for many disciplines. The Open Space program itself has been of interest to experts from other cities and from foreign countries.

Understanding this area's history, along with a rudimentary knowledge of the industrial processes of coal mining and of the families who lived in this valley

so long ago, adds immeasurably to visitors appreciation of this first coal mining district in the Colorado Territory .

Marshall Mesa is a showcase where prairies meet mountains and where the dramatic mining history lends richness to the lives of those who enjoy this land today.

Photograph credit: Joanna Sarnpson collection





Photograph credit: Boulder Historical Society, Carnegie Branch Library for Local History.



This photograph of the Gorham boarding house (front left) and mine (center) was taken July 13, 1913. The Gorham Mine was a big railroad mine with a daily production capacity of 800 tons of coal. Beginning in 1920 and throughout the Depression, the coalfields were sold time after time for taxes and later redeemed by the coal companies. The Gorham Mine closed in 1939 and the era of coal mining ended for Marshall in 1946 when the Rocky Mountain Fuel Company filed for bankruptcy. Mine structures were dismantled and relocated to other areas. The coalfields were used primarily for grazing until 1971 when the City of Boulder Open Space Department began purchasing these properties.



Photograph credit: Pat Miltzer



This photograph of the old Gorham boarding house foundation and the Marshall Mesa Coal Mining Project team was taken on April 3, 1995. The project team (from left to right): author Joanna Sampson, project director Brent Wheeler with the City of Boulder Open Space Department, archaeologist Pete Gleichman of Native Cultural Services and his crew leader Scott Simmons would like to thank the Colorado Historical Society and the City of Boulder for their assistance and funding of the Marshall Mesa Coal Mining Project.



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